

(iv) transferring said reconstructed embryo to a host pig such that the reconstructed embryo develops into a fetus,

wherein the fetus is capable of developing to term.

21. (New) The method according to claim 20, which further comprises developing the fetus to an offspring.

22. (New) The method according to claim 20, wherein said differentiated pig cell is a genetically modified pig cell comprising an insertion, deletion, or modification.

23. (New) The method according to claim 22, which further comprises developing the fetus to an offspring.

24. (New) The method according to claim 20, which comprises culturing said activated reconstructed embryo to blastocyst before transferring it to a host.

25. (New) The method according to claim 20, wherein the differentiated pig cell is a fibroblast cell.

26. (New) The method according to claim 20, wherein the differentiated pig cell is from an individual non-human mammal that is live-born.

27. (New) The method according to claim 20, wherein the enucleated oocyte is matured *in vitro* or *in vivo* prior to enucleation.

28. (New) The method according to claim 20, wherein the reconstructed embryo is activated by exposure to several electrical pulses.

29. (New) The method according to claim 20, wherein the reconstructed embryo is activated by exposure to a single electrical pulse.

30. (New) The method according to claim 22, comprising adding an exogenous DNA sequence by microinjection.

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31. (New) The method according to claim 22, comprising adding an exogenous DNA sequence by electroporation.

32. (New) The method according to claim 20, wherein said differentiated pig cell is a cultured pig cell.

33. (New) A method of cloning a pig, comprising:

(i) inserting a nucleus of a cultured, differentiated pig embryonic disc cell, which is in the G1 phase of the cell cycle, into an unactivated, enucleated, metaphase II-arrested, pig oocyte, to reconstruct an embryo;

(ii) maintaining the reconstructed embryo without activation for a sufficient time to allow the reconstructed embryo to become capable of developing to term;

(iii) activating the resultant reconstructed embryo; and

(iv) transferring said reconstructed embryo to a host pig such that the reconstructed embryo develops into a fetus,

wherein the fetus is capable of developing to term.

34. (New) The method according to claim 33, which comprises culturing said activated reconstructed embryo to blastocyst before transferring it to a host.

35. (New) The method according to claim 33, which further comprises developing the fetus to an offspring.

36. (New) A method of producing a non-human mammalian embryo by nuclear transfer comprising:

(i) transfer of a nucleus of a non-human mammalian cell, which has passed start in the mitotic cell cycle and is in the G1 phase of the cell cycle, into an unactivated, enucleated, metaphase II-arrested oocyte of the same species as the donor cell nucleus;

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